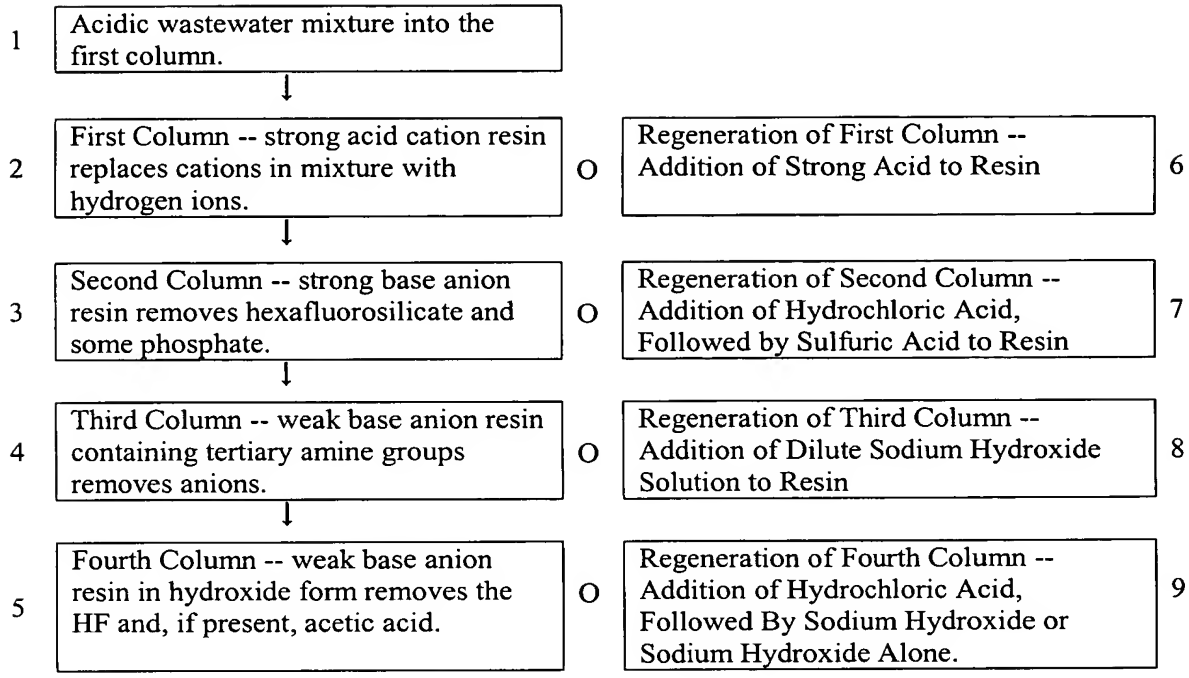
1
Acidic wastewater mixture into the first column.
2
First Column -- strong acid cation resin replaces cations in mixture with hydrogen ions.
O
Regeneration of First Column -- Addition of Strong Acid to Resin
6
3
Second Column -- strong base anion resin removes hexafluorosilicate and some phosphate.
O
Regeneration of Second Column -- Addition of Hydrochloric Acid, Followed by Sulfuric Acid to Resin
7
4
Third Column -- weak base anion resin containing tertiary amine groups removes anions.
O
Regeneration of Third Column -- Addition of Dilute Sodium Hydroxide Solution to Resin
8
5
Fourth Column -- weak base anion resin in hydroxide form removes the HF and, if present, acetic acid.
O
Regeneration of Fourth Column -- Addition of Hydrochloric Acid, Followed By Sodium Hydroxide or Sodium Hydroxide Alone.
9

FIGURE 1